Request for Class 2 Permit Modification in Accordance with WIPP Permit Condition I.B.1

Ten Drum Overpack Storage Volume and Container Description Consolidation

Waste Isolation Pilot Plant
Carlsbad, New Mexico

April 27, 2001

Request For Class 2 Permit Modification in Accordance with WIPP Permit Condition I.B.1

Consistent with the requirements of the Hazardous Waste Facility Permit (NM4890139088-TSDF) for the Waste Isolation Pilot Plant the U.S. Department of Energy, Carlsbad Field Office is submitting to the New Mexico Environment Department (NMED) this Class 2 modification request. Specifically, this information is provided to comply with Permit Condition I.B.1 (20.4.1.900 New Mexico Administrative Code (NMAC) incorporating 40 CFR § 270.42(b)).

This modification is listed in Table 1. Listed information includes a reference to the applicable section of the Permit, the title of the item and the relevant permit modification category as identified in 20.4.1.900 NMAC. A more complete description of the Class 2 modification is provided in Attachment A.

The changes within this modification request do not reduce the capacity of the Permittees to protect human health or the environment.

Table 1. Class 2 Hazardous Waste Facility Permit Modification

No.	Affected Permit Section	Item	Category	Attachment A Page #
1	a.1. Module III a.2. Module IV.c.1 b.1. Attachment F c.1. Attachment M1	Increase Storage Capacity By 12.21% and Consolidate the Descriptions of Containers	F.1.b	A-2

Attachment A

Description of the Hazardous Waste Facility Class 2 Permit Modification

Item 1

Description:

Increase the current storage capacity of the Waste Handling Building (WHB) by 12.21% to accommodate ten drum overpack (TDOP) containers.

Consolidate the locations of container descriptions into one Section within the HWFP.

Basis:

In the WIPP permit application (DOE/WIPP 91-005, Rev. 6) and the draft final permit (May 15, 1998), one form of acceptable container was the TDOP.

On July 20, 2000 the Department of Energy (DOE), Carlsbad Field Office (CBFO) submitted a Class 1 modification to the New Mexico Environment Department (NMED) to allow the use of direct loaded ten drum overpacks (TDOP) having an internal capacity of 4.5 cubic meters. TDOPs may be used in three storage areas inside the WHB. Storage in these three areas is on facility pallets for waste that has been unloaded from TRUPACT-II. However, these areas do not have sufficient capacity to accommodate the situation when all facility pallet location contain TDOP containers. Therefore, it is necessary to increase the capacity of these storage areas to take into account the additional volume of direct loaded TDOPs. This additional volume was calculated to be slightly over 12% of the total facility capacity.

The current HWFP has descriptions of containers interspersed throughout. These include container descriptions in Modules III and IV as well as in Attachments F and M1. This modification will consolidate all container descriptions into Attachment M1 while referencing that Attachment in all other Modules or Attachments. This assures consistency between all of the descriptions.

Discussion:

Several Class 1 permit modifications have amended the original container descriptions in the HWFP. These changes have raised two concerns which are addressed by this Class 2 permit modification. The first concern deals with sufficient storage capacity for TDOP containers. The second concern deals with consistent descriptions and permit conditions regarding containers.

With regard to storage capacity, storage in the WHB, for waste that has been removed from TRUPACT-II's, is on facility pallets. Each facility pallet has two positions. The current HWFP, as modified by the July 20, 2000, Class 1 modification, allows for the storage of 7 pallets with 14 positions in the NE Storage Area; 4 positions at the TRUDOCK Storage Area and 2 positions in the Shielded Storage Area. In the current HWFP there is insufficient capacity in these areas if all of the available pallet positions contained TDOPs. For this reason it is necessary to increase the permitted capacity by slightly more than 12%. The calculations for this capacity increase are indicated below:

PERMITTED VS. REQUIRED CAPACITY

Area	Container Equivalents in Permit[1]	TDOP Equivalents	TDOP Capacity [1] (m^3)	HWFP Capacity [2] (m^3)	Additional Capacity Required (m^3)
TRUDOCK Storage Area	4 TRUPACT II	4	18	15	3
NE Storage Area	7 Facility Pallets	14	63	52.6	10.4
Shielded Storage Area	1 Facility Pallet	2	9	7.5	1.5
TOTAL		20	90	75.1	14.9

1. The volume of a TDOP is as specified in Module III, Section III.C.1 and is 4.5 cubic meters

2.The Permitted capacities are as specified in Module III, Table III.A.1

CAPACITY INCREASE CALCULATION

Facility Capacity = 122 m^3

Additional Required capacity = 14.9 m^3

14.9 / 122 x 100 = 12.21% increase

1. The facility capacity is the sum of the WHB capacity as specified in Module III, Table III.A.1 and the Parking Area Unit as specified in Module III, Table III.A.2

Because 12.21% is less than 25%, this modification qualifies as a Class 2 permit modification in accordance with 20.4.1.900 NMAC (incorporating 40 CFR § 270.42 Appendix 1, Item F.1.b.

Consistent with this change it is the intent of the DOE to consolidate the locations of container descriptions into one Attachment. The logical choice for that location would be in Attachment M1 (Container Storage). All container descriptions and container requirements will remain the same as what is currently required in the HWFP. The only change will be that all Attachments and Modules will simply reference the standards delineated within Attachment M1.

Revised Permit Text:

a. 1. Module III.A.1.b

Storage locations and quantities - the Permittees may store TRU mixed waste containers in four (4) locations in the WHB Unit, as specified in Table III.A.1 below and depicted in Permit Attachment M1, Figure M1-7. The Permittees may store quantities of TRU mixed waste containers in these locations not to exceed the maximum capacities specified in Table III.A.1 below.

Table III.A.1 - WHB Unit

Description	Area	Maximum Capacity	Container Equivalent
TRUDOCK Storage Area	4,734 ft^2 (440 m^2)	~~530.4~~ 636 ft^3 (~~15~~ 18 m^3)	Contents of 4 TRUPACT-IIs
NE Storage Area	2,924 ft^2 (272 m^2)	~~1856~~ 2226 ft^3 (~~52.6~~ 63 m^3)	7 loaded facility pallets
SE (Shielded) Storage Area	292.5 ft^2 (27.2 m^2)	~~265~~ 318 ft^3 (~~7.5~~ 9 m^3)	1 loaded facility pallet
Derived Waste Storage Area	48 ft^2 (4.46 m^2)	66.3 ft^3 (1.88 m^3)	1 Standard Waste Box
Total	**--**	**~~2718~~ 3246 ft^3 (~~77~~ 91.9 m^3)**	**–**

a. 2. Module C.1

The Permittees shall use containers that comply with the requirements for U.S. Department of Transportation shipping container regulations (49 CFR §173 - Shippers - General Requirements for Shipment and Packaging, and 49 CFR §178 - Specifications for Packaging) for storage of TRU mixed waste at WIPP. The Permittees are prohibited from storing TRU mixed waste in any container not specified in Permit Attachment M1, Section M1-1b~~, as set forth below:~~

~~III.C.1.a Standard 55-gallon (208-liter) drum - with a gross internal volume of 7.3 ft^3 (0.21 m^3).~~

~~III.C.1.b Standard waste box (**SWB**) - with a gross internal volume of 66.3 ft^3 (1.88 m^3).~~

~~III.C.1.c Ten-drum overpack (**TDOP**) - with a gross capacity of 160 ft^3 (4.5 m^3) to be direct loaded with CH TRU mixed waste, or to contain up to ten standard 55-gallon drums or one SWB.~~

~~III.C.1.d 85-gallon (322-liter) drum - with a gross internal volume of 11.3 ft^3 (0.32 m^3). 85-gallon drums may be direct loaded with CH TRU-mixed or may be used for overpacking contaminated 55-gallons drums containing CH TRU mixed waste or for collecting and storing derived waste.~~

~~III.C.1.e 100-gallon (379-liter)drum =- with a gross internal~~

~~volume of 13.4 ft^3 (0.38m^3). 100-gallon drums may be direct loaded with CH TRU mixed waste or may be used for overpacking several compacted containers containing CH TRU mixed waste.~~

b.1. Attachment F

Containers

The waste containers that will be used at the WIPP facility are identified in Permit Attachment M1-1b. These containers qualify as "containers," in accordance with 20 NMAC 4.1.101 (incorporating 40 CFR §260.10). That is, they are "portable devices in which a material is stored, transported, treated, disposed of, or otherwise handled."

TRU mixed waste containers, containing off-site waste, will not be not opened at the WIPP facility. Derived waste containers are kept closed at all times unless waste is being added or removed.

Liquid waste, including “derived waste” containing liquids, will not be emplaced in the WIPP. TRU mixed waste for emplacement in the WIPP shall contain as little residual liquid as is reasonably achievable. All internal containers (e.g., bottles, cans, etc.) will be well-drained, but may contain residual liquids. As a guideline, residual liquids in well-drained containers will be restricted to approximately one percent of the volume of the internal container. In no case shall the total liquid equal or exceed one volume percent of the waste container (e.g., drum or standard waste box [**SWB**]).

Special requirements for ignitable, reactive, and incompatible waste are addressed in 20 NMAC 4.1.500 (incorporating 40 CFR §§264.176 and 177). The RCRA Permit Treatment, Storage, and Disposal Facility Waste Acceptance Criteria (**TSDF-WAC**) precludes ignitable, reactive, or incompatible TRU mixed waste at the WIPP.

Description of Containers

CH TRU mixed waste containers will be either 55-gallon (gal) (208-liter (L)) drums singly or arranged into seven (7)-packs, 85-gal (321-L) drums (used as overpacks) singly or arranged into four (4)-packs, 100-gallon (379 L) drums singly or arranged into 3-packs, ten-drum overpacks (**TDOP**), or 66.3 ft^3 (1.88 m^3) SWBs.

c.1. Attachment M1

Standard 55-Gallon Drums

Standard 55-gal (208-L) drums meet the requirements for U.S. Department of Transportation (**DOT**) specification 7A regulations.

A standard 55-gal (208-L) drum has a gross internal volume of 7.4 cubic feet (ft^3) (0.210 cubic meters (m^3)). Figure M1-3 shows a standard TRU mixed waste drum. One or more ~~A~~ filtered vents (as described in Section M1-1d(1)) will be installed in the drum lid or body to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization.

Standard 55-gal (208-L) drums are constructed of mild steel and may also

contain rigid, molded polyethylene (or other compatible material) liners. These liners are procured to a specification describing the functional requirements of fitting inside the drum, material thickness and tolerances, and quality controls and required testing. A quality assurance surveillance program is applied to all procurements to verify that the liners meet the specification.

Standard 55-gal (208-L) drums may be configured as a 7-pack or as an individual unit.

Standard 55-gal (208-L) drums may be used to collect derived waste.

Standard Waste Boxes

The SWBs meet all the requirements of DOT specification 7A regulations.

One or more filtered vents (as described in Section M1-1d(1)) will be installed in the standard waste box lid or body to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization. They have an internal volume of 66.3 ft^3 (1.88 m^3). Figure M1-4 shows a SWB.

The SWB is the largest container that may be used to collect derived waste.

100-Gallon Drum

100-gal (379-L) drums meet the requirements for U.S. Department of Transportation (DOT) specification 7A regulations.

A 100-gal (379-L) drum has a gross internal volume of 13.4 cubic feet (ft^3) (0.39 cubic meters (m^3)). One or more filtered vents (as described in Section M1-1d(1)) will be installed in the drum lid or body to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization.

100-gal (379-L) drums are constructed of mild steel and may also contain rigid, molded polyethylene (or other compatible material) liners. These liners are procured to specification describing the functional requirements fitting inside the drum, material thickness and tolerances, and quality controls and required testing. A quality assurance surveillance program is applied to all procurements to verify that the liners meet the specification.

The 100-gal (379-L) drums may be configured as a 3-pack or as an individual unit.

100-gal (379-L) drums may be used as overpacks or may be direct loaded.

Ten-Drum Overpack

The TDOP is a metal container, similar to a SWB, that meets DOT specification 7A and is certified to be noncombustible and to meet all applicable requirements for Type A packaging. The TDOP is a welded-steel, right circular cylinder,

approximately 74 inches (in.) (1.9 meters (m)) high and 71 in. (1.8 m) in diameter (Figure M1-5) with a gross internal capacity of 160 ft^3 . The maximum loaded weight of a TDOP is 6,700 pounds (lbs) (3,040 kilograms (kg)). A bolted lid on one end is removable; sealing is accomplished by clamping a neoprene gasket between the lid and the body. Filter ports are located near the top of the TDOP. One or more filtered vents (as described in Section M1-1d(1)) will be installed in the ten-drum overpack lid or body to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization. A TDOP may contain up to ten standard 55-gal (208-L) drums or one SWB. TDOPs may be used to overpack drums or SWBs containing CH TRU mixed waste. The TDOP may also be direct loaded with waste items that are too large to fit into either the standard 55-gallon (208-L) drum, 85-gallon drum or the SWB.

Eighty-Five Gallon Drum

The 85-gal (321-L) drums meet the requirements for DOT specification 7A regulations. One or more filtered vents (as described in Section M1-1d(1)) will be installed in the eighty-five gallon drum lid or body to prevent the escape of any radioactive particulates and to eliminate any potential of pressurization.

The 85-gal (321-L) drum ~~overpack~~, which is shown in Figure M1-6, will be used primarily for overpacking contaminated 55-gal (208 L) drums at the WIPP facility.

The 85-gal (321-L) drums may be configured as a 4-pack or as an individual unit.

85-gal (321-L) drums may be direct loaded with CH TRU-mixed waste and may be used to collect or store derived waste.

Container Compatibility

All containers will be made of steel, and some will contain rigid, molded polyethylene liners. The compatibility study, documented in Appendix C1 of the WIPP RCRA Part B Permit Application (DOE, 1997a), included container materials to assure containers are compatible with the waste. Therefore, these containers meet the requirements of 20 NMAC 4.1.500 (incorporating 40 CFR §264.172).

Attachment O

Part A Application

On March 8, 2001, CBFO submitted a Class 2 modification that requested a change to this section. The changes in this modification incorporate those pending changes and are bold redline text.

ATTACHMENT O

REVISED HAZARDOUS WASTE PERMIT APPLICATION PART A

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ATTACHMENT O

HAZARDOUS WASTE PERMIT APPLICATION PART A

TABLE OF CONTENTS

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Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0248-EPA-OT

For EPA Regional Use Only

Date Received
Month Day Year

United States Environmental Protection Agency
Washington, DC 20460

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

I. Facility's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Part A Submission

[X] B. Revised Part A Submission (Amendment # 13)

C. Facility's EPA ID Number	D. Secondary ID Number *(If applicable)*
NM4890139088	

II. Name of Facility

WASTE ISOLATION PILOT PLANT

III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street

30 MILES EAST OF CARLSBAD ON

Street *(Continued)*

JAL HIGHWAY

City or Town	State	Zip Code
CARLSBAD	NM	88221

County Code *(If known)*	County Name
03	EDDY

B. Land Type	C. Geographic Location		D. Facility Existence Date
(Enter code)	*LATITUDE (Degrees, minutes, & seconds)*	*LONGITUDE (Degrees, minutes, & seconds)*	Month Day Year
F	32 22 30 N	103 47 30 W	05 18 1981

IV. Facility Mailing Address

Street or P.O. Box

PO BOX 3090

City or Town	State	Zip Code
CARLSBAD	NM	88221-3090

V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

Name *(Last)*	*(First)*
TRIAY	INÈS

Job Title	Phone Number *(Area Code and Number)*
MANAGER	505-234-7300

VI. Facility Contact Address *(See instructions)*

A. Contact Address Location	A. Contact Address Mailing	A. Contact Address Other	B. Street or P.O. Box
	X		PO BOX 3090

City or Town	State	Zip Code
CARLSBAD	NM	88221-3090

EPA Form 8700-23 (Rev. 10/99)

EPA ID Number *(Enter from page 1)*: NM4890139088

Secondary ID Number *(Enter from page 1)*:

VII. Operator Information *(See instructions)*

A. Name of Operator: U S DEPARTMENT OF ENERGY

Street or P.O. Box: PO BOX 3090

City or Town: CARLSBAD

State: NM

ZIP Code: 88221—3090

Phone Number *(Area Code and Number)*: 505—234—7300

B. Operator Type: F

C. Change of Operator Indicator: Yes [ ] No [X]

Date Changed: Month / Day / Year

VIII. Facility Owner *(See instructions)*

A. Name of Facility's Legal Owner: U S DEPARTMENT OF ENERGY

Street or P.O. Box: PO BOX 3090

City or Town: CARLSBAD

State: NM

ZIP Code: 88221—3090

Phone Number *(Area Code and Number)*: 505—234—7300

B. Owner Type: F

C. Change of Owner Indicator: Yes [ ] No [X]

Date Changed: Month / Day / Year

IX. NAICS Codes *(in order of significance; start in left box)*

First	4953	Third	
(Description)	REFUSE SYSTEMS	(Description)	
Second		Fourth	
(Description)		(Description)	

X. Other Environmental Permits *(See instructions)*

A. Permit Type *(Enter code)*	B. Permit Number	C. Description
E		*See Appendix 01, Table 01-1

EPA ID Number *(Enter from page 1)*												Secondary ID Number *(Enter from page 1)*											
N	M	4	8	9	0	1	3	9	0	8	8												

XI. Nature of Business *(Provide a brief description)*

The Waste Isolation Pilot Plant (WIPP) is a U.S. Department of Energy facility intended to demonstrate the technical and operational principles involved in the permanent isolation and disposal of defense-generated transuranic waste. For purposes of RCRA, WIPP operations entail receiving, unloading, and transferring radioactive-mixed waste from the surface of the site to the underground hazardous waste management units. Waste will be emplaced in an underground geologic respository horizon located in a deep-bedded salt formation approximately 2,150 feet beneath the surface.

XII. Process Codes and Design Capacities

A. **PROCESS CODE** - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in item XIII.*

B. **PROCESS DESIGN CAPACITY** - *For each code entered in column A, enter the capacity of the process.*
1. **AMOUNT** - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.*
2. **UNIT OF MEASURE** - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. **PROCESS TOTAL NUMBER OF UNITS** - *Enter the total number of units used with the corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure Listed Below
	Storage:	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure Listed Below
	Treatment:	
T01	Tank Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, Or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed in 40 CFR §260.10	
T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R
Million Btu Per Hour	X
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu Per Hour	I

EPA ID Number *(Enter from page 1)*: N M 4 8 9 0 1 3 9 0 8 8

Secondary ID Number *(Enter from page 1)*:

XII. Process Codes and Design Capabilities *(Continued)*

EXAMPLE FOR COMPLETING ITEM XII (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	For Official Use Only
X	1	S	0	2	5 3 3 . 7 8 8	G	0 0 1	
	1	X	0	4	175,600 Total (54,064 in 10 years)	C	0 1 0	
	2				See attached page for additional process information			
	3	S	0	1	~~87.7~~ 91.9	C	0 0 1	
	4				WHB Container Storage Unit See attached page for additional process information			
	5	S	0	1	~~47.1~~ 45	C	0 0 1	
	6				Parking Area Container Storage Unit See attached page for additional process information			
	7							
	8							
	9							
1	0							
1	1							
1	2							
1	3							

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in item XIII.

XIII. Other Processes *(Follow instructions from item XII for D99, S99, T04 and X99 process codes)*

Line Number (Enter #s in seq w/XII)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	D. Description Of Process
X	1	T	0	4	.			In-situ Vitrification
	1				.			
	2				.			
	3				.			
	4				.			

XII. PROCESS—CODES AND DESIGN CAPACITIES (continued)

The Waste Isolation Pilot Plant (WIPP) geologic repository is defined as a "miscellaneous unit" under 40 CFR §260.10. "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, waste pile, land treatment unit, landfill, incinerator, containment building, boiler, industrial furnace, or underground injection well with appropriate technical standards under 40 CFR Part 146, corrective action management unit, or unit eligible for research, development, and demonstration permit under 40 CFR §270.65. The WIPP is a geologic repository designed for the disposal of defense-generated transuranic (TRU) waste. Some of the TRU wastes disposed of at the WIPP contain hazardous wastes as co-contaminants. More than half the waste to be disposed of at the WIPP also meets the definition of debris waste. The debris categories include manufactured goods, biological materials, and naturally occurring geological materials. Approximately 120,000 cubic meters (m^3) of the 175,600 m^3 of WIPP wastes is categorized as debris waste. The geologic repository has been divided into ten discrete hazardous waste management units (HWMU) which are being permitted under 40 CFR Part 264, Subpart X.

During the Disposal Phase of the facility, which is expected to last 25 years, the total amount of waste received from off-site generators and any derived waste will be limited to 175,600 m^3 of TRU waste of which up to 7,080 m^3 may be remote-handled (RH) TRU mixed waste. For purposes of this application, all TRU waste is managed as though it were mixed.

On March 25, 1996, the DOE reached the conclusion that in order to comply with 40 CFR 191 §13 which regulates the long-term release of radionuclides from a geologic disposal facility, it is necessary to add magnesium oxide to each disposal room. This additive is to be placed as a backfill over, beside, and within the waste stacks. The function of the backfill is to chemically alter the composition of brine that may accumulate in the disposal region. The result of the chemical alteration is to significantly reduce the solubility of the prevalent TRU radionuclides.

The process design capacity for the miscellaneous unit (composed of ten underground HWMUs in the geologic repository) shown in Section XII B, is for the maximum amount of waste that may be received from off-site generators plus the maximum expected amount of derived wastes that may be generated at the WIPP facility. In addition, two HWMUs have been designated as container storage units (S01) in Section XII. One is inside the Waste Handling Building (WHB) and consists of the contact-handled (CH) bay, conveyance loading room, waste hoist entry room, RH bay, cask unloading room, hot cell, transfer cell, and facility cask loading room. This HWMU will be used for waste receipt, handling, and storage (including storage of derived waste) prior to emplacement in the underground geologic repository. No treatment or disposal will occur in this S01 HWMU. The capacity of this S01 unit for storage is ~~87.7~~ 91.9 m^3, based on 40 standard waste boxes or seven-packs of drums on pallets and in the TRUDOCKs, one standard waste box of derived waste, seven RH canisters in the transfer cell, and five RH canisters in the hot cell. The second S01 HWMU is the parking area outside the WHB where the Transuranic Package Transporter (TRUPACT-II) trailers and the road cask trailers will be parked awaiting waste handling operations. The capacity of this unit is 12 TRUPACT-IIs and three road casks or four rail casks with a combined volume of ~~47.1~~ 45 m^3. The railroad side

tracks are included in this area to accommodate rail shipments of RH TRU mixed waste. The HWMUs are shown in Appendix O3 as Figures O3-2, O3-3, and O3-4.

During the ten year period of the permit, up to 52,110 m^3 of CH waste and 1,954 m^3 of RH waste could be emplaced in Panels 1 to 3. A fourth HWMU (Panel 4), plus disposal area access drifts (designated as Panels 9 and 10), will be constructed under this permit. These latter areas will not receive waste for disposal under this permit.

EPA ID Number *(Enter from page 1)*

N	M	4	8	9	0	1	3	9	0	8	8

Secondary ID Number *(Enter from page 1)*

XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/ or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of item XIV-D(1).*
3. *Use additional sheet, enter line number from previous sheet, and enter additional code(s) in item XIV-E.*

2. PROCESS DESCRIPTION: *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

***EXAMPLE FOR COMPLETING ITEM XIV** (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.*

Line Number		A. EPA HAZARD WASTE NO. (Enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS (1) PROCESS CODES (Enter)								D. PROCESS (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X	1	K	0	5	4	900	p	T	0	3	D	8	0			
X	2	D	0	0	2	400	P	T	0	3	D	8	0			
X	3	D	0	0	1	100	P	T	0	3	D	8	0			
X	4	D	0	0	2											Included With Above

EPA ID Number *(Enter from page 1)*: N M 4 8 9 0 1 3 9 0 8 8

Secondary ID Number *(Enter from page 1)*:

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)								D. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
	1	F	0	0	1	1,891	M	X	0	4	S	0	1	S	0	1	
	2	F	0	0	2	1,860	M	X	0	4	S	0	1	S	0	1	
	3	F	0	0	3	1,593	M	X	0	4	S	0	1	S	0	1	
	4	F	0	0	4	26	M	X	0	4	S	0	1	S	0	1	
	5	F	0	0	5	1,829	M	X	0	4	S	0	1	S	0	1	
	6	F	0	0	6	915	M	X	0	4	S	0	1	S	0	1	
	7	F	0	0	7	915	M	X	0	4	S	0	1	S	0	1	
	8	F	0	0	9	915	M	X	0	4	S	0	1	S	0	1	
	9	D	0	0	4	903	M	X	0	4	S	0	1	S	0	1	
1	0	D	0	0	5	484	M	X	0	4	S	0	1	S	0	1	
1	1	D	0	0	6	1,819	M	X	0	4	S	0	1	S	0	1	
1	2	D	0	0	7	1,248	M	X	0	4	S	0	1	S	0	1	
1	3	D	0	0	8	3,246	M	X	0	4	S	0	1	S	0	1	
1	4	D	0	0	9	1,727	M	X	0	4	S	0	1	S	0	1	
1	5	D	0	1	0	186	M	X	0	4	S	0	1	S	0	1	
1	6	D	0	1	1	1,090	M	X	0	4	S	0	1	S	0	1	
1	7	D	0	1	8	749	M	X	0	4	S	0	1	S	0	1	
1	8	D	0	1	9	761	M	X	0	4	S	0	1	S	0	1	
1	9	D	0	2	1	26	M	X	0	4	S	0	1	S	0	1	
2	0	D	0	2	2	1,098	M	X	0	4	S	0	1	S	0	1	
2	1	D	0	2	6	609	M	X	0	4	S	0	1	S	0	1	
2	2	D	0	2	7	26	M	X	0	4	S	0	1	S	0	1	
2	3	D	0	2	8	449	M	X	0	4	S	0	1	S	0	1	
2	4	D	0	2	9	478	M	X	0	4	S	0	1	S	0	1	
2	5	D	0	3	0	26	M	X	0	4	S	0	1	S	0	1	
2	6	D	0	3	2	26	M	X	0	4	S	0	1	S	0	1	
2	7	D	0	3	4	26	M	X	0	4	S	0	1	S	0	1	
2	8	D	0	3	5	139	M	X	0	4	S	0	1	S	0	1	
2	9	D	0	3	6	26	M	X	0	4	S	0	1	S	0	1	
3	0	D	0	3	7	26	M	X	0	4	S	0	1	S	0	1	
3	1	D	0	3	8	26	M	X	0	4	S	0	1	S	0	1	
3	2	D	0	3	9	26	M	X	0	4	S	0	1	S	0	1	
3	3	D	0	4	0	140	M	X	0	4	S	0	1	S	0	1	
3	4	D	0	4	3	26	M	X	0	4	S	0	1	S	0	1	
3	5	P	0	1	5	945	M	X	0	4	S	0	1	S	0	1	

EPA ID Number *(Enter from page 1)*: N M 4 8 9 0 1 3 9 0 8 8

Secondary ID Number *(Enter from page 1)*:

XIV. Description of Hazardous Wastes *(Continued; use additional sheets as necessary)*

Line Number		A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)	D. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
	1	U 0 0 2	344	M	X 0 4 S 0 1 S 0 1	
	2	U 0 1 9	344	M	X 0 4 S 0 1 S 0 1	
	3	U 0 3 7	344	M	X 0 4 S 0 1 S 0 1	
	4	U 0 4 3	344	M	X 0 4 S 0 1 S 0 1	
	5	U 0 4 4	344	M	X 0 4 S 0 1 S 0 1	
	6	U 0 5 2	344	M	X 0 4 S 0 1 S 0 1	
	7	U 0 7 0	344	M	X 0 4 S 0 1 S 0 1	
	8	U 0 7 2	344	M	X 0 4 S 0 1 S 0 1	
	9	U 0 7 8	344	M	X 0 4 S 0 1 S 0 1	
1	0	U 0 7 9	344	M	X 0 4 S 0 1 S 0 1	
1	1	U 1 0 5	344	M	X 0 4 S 0 1 S 0 1	
1	2	U 1 2 2	344	M	X 0 4 S 0 1 S 0 1	
1	3	U 1 3 3	344	M	X 0 4 S 0 1 S 0 1	
1	4	U 1 5 1	344	M	X 0 4 S 0 1 S 0 1	
1	5	U 1 5 4	344	M	X 0 4 S 0 1 S 0 1	
1	6	U 1 5 9	344	M	X 0 4 S 0 1 S 0 1	
1	7	U 1 9 6	344	M	X 0 4 S 0 1 S 0 1	
1	8	U 2 0 9	344	M	X 0 4 S 0 1 S 0 1	
1	9	U 2 1 0	344	M	X 0 4 S 0 1 S 0 1	
2	0	U 2 2 0	344	M	X 0 4 S 0 1 S 0 1	
2	1	U 2 2 6	344	M	X 0 4 S 0 1 S 0 1	
2	2	U 2 2 8	344	M	X 0 4 S 0 1 S 0 1	
2	3	U 2 3 9	344	M	X 0 4 S 0 1 S 0 1	
2	4	U 1 3 4	344	M	X 0 4 S 0 1 S 0 1	
2	5	P 1 2 0	3.3	M	X 0 4 S 0 1 S 0 1	
2	6	D 0 3 3	3.3	M	X 0 4 S 0 1 S 0 1	
2	7					
2	8					
2	9					
3	0					
3	1					
3	2					
3	3					
3	4					
3	5					

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0034 Expires 1=31-02
GSA No. 0248-EPA-01

EPA ID Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
N M 4 8 9 0 1 3 9 0 8 8	

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (See instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature	Date Signed
Name and Official Title (Type or print) Inès R.Triay, Manager, DOE/Carlsbad Field Office	
Owner Signature Inès Triay	Date Signed 04.30.01
Name and Official Title (Type or print)	
Operator Signature Inès Triay	Date Signed 04.30.01
Name and Official Title (Type or print) Inès R.Triay, Manager, DOE/Carlsbad Field Office	
Operator Signature John L. Lee	Date Signed 4/26/01
Name and Official Title (Type or print) John L. Lee, President and General Manager – Westinghouse TRU Solutions, LLC	

XIX. Comments

Section XVIII Operator Signature - *See attached "RCRA Part A Application Certification"

Date of submittal of clarifying information as requested by NMED, May 28, 1996

Additional data were submitted on July 9, 1991; November 12, 1992; January 29, 1993; March 2, 1995; May 26, 1995; April 12, 1996; May 29, 1996; April 21, 1999; May 10, 1999; February 2, 2001; and March 7, 2001

Part A originally signed on January 18, 1991, and submitted on January 22, 1991.

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

NM4890139088

RCRA PART A APPLICATION CERTIFICATION

The U.S. Department of Energy (DOE), through its Carlsbad Field Office, has signed as "owner and operator," and Westinghouse TRU Solutions, LLC , has signed this application for the permitted facility as "co-operator."

The DOE has determined that dual signatures best reflect the actual apportionment of Resource Conservation and Recovery Act (RCRA) responsibilities as follows:

> The DOE's RCRA responsibilities are for policy, programmatic directives, funding and scheduling decisions, Waste Isolation Pilot Plant (WIPP) requirements of DOE generator sites, auditing, and oversight of all other parties engaged in work at the WIPP, as well as general oversight.
>
> The MOC RCRA responsibilities are for certain day-to-day operations (in accordance with general directions given by the DOE and in the Management and Operating Contract as part of its general oversight responsibility), including, but not limited to, the following: waste handling, monitoring, record keeping, data collection, reporting, technical advice, and contingency planning.
>
> For purposes of the certification required by 20.4.1.900 NMAC, (incorporating 40 CFR §270.11(d)), the DOE's and the MOC representatives certify, under penalty of law that this document and all attachments were prepared under their direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on their inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of their knowledge and belief, true, accurate, and complete for their respective areas of responsibility. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner and Operator Signature: Inés Triay
Title: Manager, Carlsbad Field Office
for: U.S. Department of Energy
Date: 4/30/01

Co-Operator Signature: John Lee
Title: General Manager
for: Westinghouse TRU Solutions, LLC
Date: 4/26/01